Leadership

One voice

Performance

Collaboration

Trust

Insight

Data

Peer Review

Quality

Expertise

Control

Raising standards in
building performance

Pre-Launch Member Prospectus
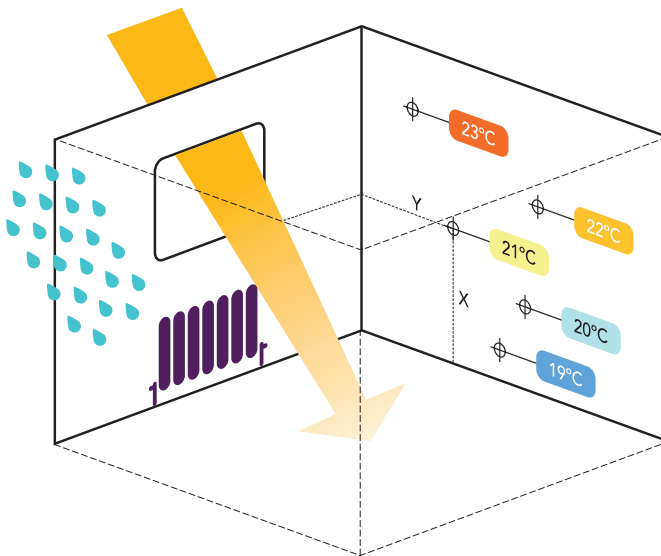
bpn
Building Performance Network

The UK suffers from a disjointed building performance evaluation sector, where data are inaccessible, study methods are not clear or shared, and decisions are often made on poor or limited data.

It is proposed to establish a new initiative, the **Building Performance Network (BPN).**

1.0 Background

Many existing, new and retrofitted buildings exhibit large gaps between design aspirations and in-use performance. To meet policy objectives and meet the needs of building owners and occupants, in-use performance needs to improve rapidly and radically. While many people are now aware of performance gaps for energy use and CO_2 emissions, fewer people are aware that issues are also evident in technical performance, occupant satisfaction, operating costs, environmental impact and importantly the health of the occupants.

Data is the key to understanding whether we are making the right choices throughout the lifecycle of the building. The UK suffers from a disjointed building performance evaluation sector, where data are inaccessible, study methods are not clear or shared, and decisions are often made on poor or limited data.

Measurement methodologies for temperature, indoor air quality (CO_2 levels) and relative humidity are inconsistent.

As a direct result of these issues it is proposed to establish a new initiative, the **Building Performance Network (BPN).**

A number of relevant reports have been commissioned by a number of potential BPN partners. Examples are as follows:

In 2014 the Sustainable Development Foundation was commissioned by the Green Construction Board to:

- Understand the extent of existing building performance data
- Assess the accessibility and quality of the data
- Make suggestions for actions that could be taken to fill gaps in the existence and/or quality of the data
- Indicate the impact that these steps might have on the achievement of behaviour change regarding the sustainability of the built environment.

The research report GCB Project 430 Knowledge Capture and Dissemination was published in June 2014 and identified 161 data sets. These data sets are not an exhaustive list of collected data and information and the report concluded that there is no shortage of data, even though some may not be generally accessible.

2.0 Key Objectives

The Building Performance Network (BPN) will be an independent not for profit organisation, operating in all building related sectors. It will work to bring together individuals and organisations with an interest in improving building performance in operation. It is founded on the principles of integrity and robustness to ensure that it remains credible and authoritative. It is open to all, not just the existing Building Performance Evaluation industry.

The BPN has the following key objectives:

- Bring people together with an interest in building performance

- Understand how building performance data is collected and analysed to ensure members have reliable data on which to base their decisions

- Move forward the practice of building performance evaluation to make it accurate and useable for the sector

- Share and make members aware of a wide range of studies undertaken in the UK, creating a data-sharing platform to move the building performance agenda forward

- Use data to influence change in policy, procurement and practice.

3.0 Ambition

The ambition is to focus on **how to "do" performance measurement** and how to share and access data that would in turn support and help others such as the work of the UK-GBC Building Performance group. What we need is collective knowledge rather than specific knowledge.

BPN will amongst other things:

• Question the methodologies that are being used in the collection of data

• Provide a portal for the access to data by all taking into account the appropriate confidentiality issues

• Undertake comparisons with the various and many data sets.

The people driving this in the period to the launch are (in alphabetical order):

• David Adams (Melius Homes and formerly of Willmott Dixon)

• Jon Bootland (Sustainable Development Foundation)

• Bill Bordass; Rod Bunn (University College London and formerly of BSRIA)

• Robert Cohen (Verco)

• Prof Chris Gorse (Leeds Beckett University)

• Prof Rajat Gupta (Oxford Brookes University)

• George Martin (Sustainable Development Foundation)

• Mike Ormesher (Acting Chairman of the BPN)

• Sarah Ratcliffe (Better Buildings Partnership)

• Prof Paul Ruyssevelt (University College London)

• Dr Tim Sharpe (Glasgow School of Art)

• Prof Fionn Stevenson (University of Sheffield)

• Lynne Sullivan OBE (LSA Studio)

• Prof Will Swan (University of Salford)

4.0 Activities

The BPN covers both domestic and non-domestic buildings, with an initial focus on Building Performance Evaluation (BPE) practice. It aims to move beyond measurement, to action and communication. Key activities will include:

- Shape the current best and future practice for building performance, data collection and analysis
- Provide a peer review mechanism for industry and academia
- Provide information on current projects and identify their implications for industry, academia and policy makers
- Co-ordinate responses to calls for evidence and other policy consultations
- Create a platform for collaboration, providing a hub for networks and links, through web tools, conferences, events and commissioned reports
- Communicate with key audiences and identify tools to support the integration of building performance evaluation within the industry.

The BPN is not designed to undertake BPE work but rather help link work, identify potential gaps in knowledge or studies and provide a focal point for both BPE practitioners, manufacturers, design and construction professionals, policy makers and any other end users of data.

5.0 Work Streams

Leadership
e.g. Lobbying

| Community of Practice / **Network** | Best Practice **Methodologies** standards | **Portal** to connect & interpret data |

Client/User Group Projects
e.g. Peer Review

The Network seeks to link clients, commissioning groups, building owners, building product manufacturers, academic institutions, building performance experts, construction companies and policy makers together.

Leadership

- Influence central and local Government e.g. The Industrial Strategy, Bonfield Review; Building Regulations; ECO; Regulatory Bodies e.g. OFGEM; TC89; IEA and the Brexit process

- Influence the various bodies associated with the Built Environment sector e.g. Green Construction Board; the many and various professional institutions; The UK Green Building Council; The Aldersgate Group etc

- Highlight risks to clients and others and promote consistent application of good practice solutions

- Develop a consistent level playing field that will lead to increased demand for proven, effective products and services.

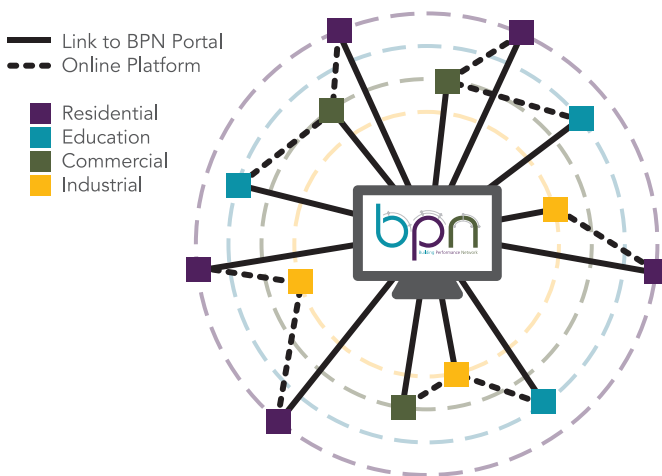## Community of Practice – The Network

The Network seeks to link clients, commissioning groups, building owners, building product manufacturers, academic institutions, building performance experts, construction companies and policy makers together.

Activities are likely to include:

- An annual conference for exchange of knowledge and experience

- Regular events, across several regions, for exchange of knowledge and experience

- A listing of members and their services/competencies on the BPN website

- A news section of the website, and associated regular newsletter, giving details of new developments, interesting research etc

- An annual technical panel to review the state of BPE in the UK and areas needing further change

- Detailed working groups to explore research and methodological development in specific areas

- Awards to celebrate best practice achievements by the leaders.

Portal to Connect and Interpret Data

Legend:
— Link to BPN Portal
--- Online Platform

■ Residential
■ Education
■ Commercial
■ Industrial

The BPN proposes a portal to link and group together existing datasets to allow greater comparison and create a larger data resource.

As identified by the work undertaken by the Sustainable Development Foundation, there are a number of data sets. Many research projects have undertaken highly detailed studies, but due to issues of access and budget, these are often smaller samples.

The ambition is to provide a point where the data can be effectively shared and, where appropriate, aggregated to make larger data sets, where detailed analysis may be undertaken to draw stronger or new conclusions. This may include;

- Data portal – a shared data resource with data aggregated where applicable

- Development of shared tools for analysis – development of shared open source tools to analyse the data

- Shared reporting on findings for members – opportunity for members to ask specific questions of data.

Good Practice Methodologies and Standards

- State of the nation - data on BPE projects undertaken by members

- The power of data – key data and findings and their implications for policy

- Methods and facilities – guidance on current standard methods, new and emerging methods and key UK scientific assets to support BPE.

Client User Group Support and Peer Review

BPN will where requested work with other groups and organisations who have or will be embarking on building performance evaluation research in order to help them develop the appropriate methodologies and protocols necessary to ensure scrutiny by policy makers and built environment experts.

The BPN will also have a peer review group of external experts that will provide systematic reviews of primary research in built environment performance and policy that will be internationally recognised as the highest standard in evidence-based performance in use. The BPN Peer Review will work collaboratively with other groups and organisations to produce authoritative, relevant and reliable evidence.

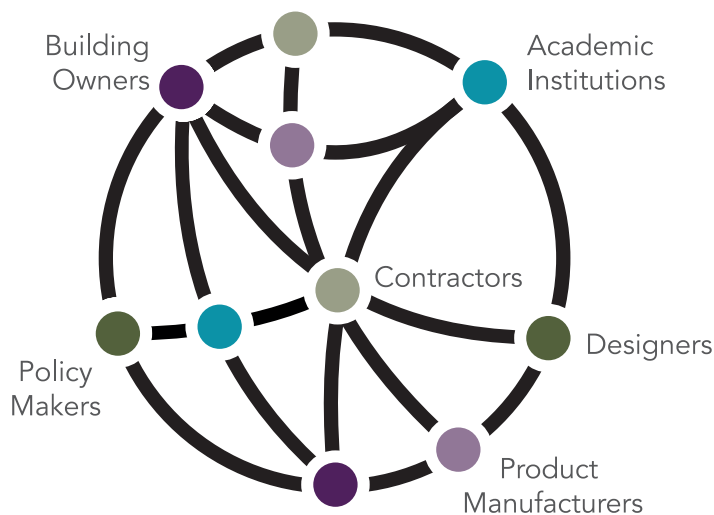# 6.0 Who is The Building Performance Network For?

The BPN offers so much to so many if you consider the clear need for a leadership role and a collaboration of both Industry and Government, to solve a very complex problem. One example is Energy Efficiency and more specifically the gap between 'design and as built performance', which takes into account everything from methodologies to manufacturing, onsite construction to in use performance measurement. However, if this is successfully addressed in terms of its transparency and accountability, to move the industry forward, then the other areas of building physics can equally be challenged and improved, with this collaboration of industry in place.

Below are some reasons for target organisations but they are by no means exhaustive and complete:

- **Manufacturers** – looking to improve their R&D and new product development (NPD) initiatives will benefit from sharing both developments and knowledge with the rest of industry before expensive rollouts and marketing capital is afforded. Methodologies and best practice guidance will ensure membership fees are offset against wasted practices and resource and possibly unnecessary testing where insight and trust is already afforded through other means.

  The ability for the manufacturing industry to connect with design, construction and regulatory bodies (in a single forum) will almost certainly improve the trust and transparency around products and systems and how they interact with the rest of the building. This will also add to the BIM intelligence for industry and reduce repetitive testing and analysis of data for the sake of it. However, it will also give insight into the need for more data and testing to protect both the manufacturing industry and the users of products, systems and also end clients using the final product. At the very least you will see where potential R&D and NPD may be needed for innovation strategies going forward.

- **Government** – will benefit from a large collaborative industry led entity for general discussions and information relevant to policy development and consideration of alternative approaches to regulatory compliance before sending out complex calls for evidence. This will also reduce the amount of unnecessary funding for projects where data already exists or where transparency is being blocked due to a lack of common ground and leadership presence. Future funding can then be more diligently spent where there is a need for improvement in data or intelligence.

- **Design professionals, construction companies, house builders, RSLs and self-builders** – looking for input and early intelligence will benefit from gaining access to what's new, what's working, what isn't, what needs more work and how to ensure collateral is being protected and robustly engineered to the best of the industry's ability. Development of building science is inevitable and we will always be faced with challenges, but working to a recognised set of collaborative principles is the way to avoid pitfalls and to ensure intelligence is both shared and adopted for maximum efficiency. This approach requires a symbiotic partnership for an effective and successful journey.

The Building Performance Network seeks to link academic institutions, contractors, product manufacturers, building owners and policy makers together.

- **Regulators and certification bodies** – will be able to discuss real design insight from all areas of the organisation and see in practice if common mistakes are being made or where data to support products, systems or certain elements of a building are being unfairly treated in terms of costly repetitive testing. On the other side the input from regulators and certification companies will be invaluable if common mistakes are being made that require more input from the wider industry.

- **Academia** – is an area where most data is kept but not always shared due to commercial protection of clients' work. This might not change where commercial sensitivity is required but many organisations have already expressed a need or desire to share data with an expert and trusted source whose goal is to ensure development and opportunity driven rollout of data. The intelligence we have amongst our academic institutes in the UK and also further afield is vitally important to a developing industry and we should maximise this potential wherever possible to ensure a common goal. Creating a platform where data can be shared more conveniently and openly with those that wish to divulge, has to be a better way to collaborate.

- **Insurance companies, mortgage lenders and warranty providers** – have a need and a desire to reduce risk, have access to transparent processes and end products for effective decision-making and scenario planning. Where better to share this insight than with an organisation that collaborates as an entire industry?

- **Clients and commissioning groups** – ultimately need to understand what the issues are in the procurement and delivery of high performing new and existing buildings, supported by strong and reliable evidence. The aim of this new organisation is to ensure that data and advice together with best practice guidance is provided from as many sources and backgrounds as possible. It should be noted that the BPN will not undertake data collection and analysis, but will help to design how to collect and analyse the data that clients are gathering. In addition, peer reviewing of data will ultimately allow a more open and insightful reflection of the information you have.

If the Building Performance Network is successful in creating a trusted body that diligently and actively engages with all stakeholders for the improvement of our industry, then the funding from the potential members within the above list (again not exhaustive) will generate a far better position for development and engagement than we have today, thus allowing for a much more innovative and trustworthy position around the real performance of buildings.

7.0 Governance

Board

Responsible for the management of the group as a business.

Interim Chair

• Mike Ormesher

Interim Chief Executive

• George Martin (Sustainable Development Foundation)

Directors

• Prof Will Swan (University of Salford)
• Jon Bootland (Sustainable Development Foundation)
• Prof Paul Ruyssevelt (University College London)
• Rod Bunn (University College London)
• Prof Rajat Gupta (Oxford Brookes University)
• Prof Chris Gorse (Leeds Beckett University)
• Prof Fionn Stevenson (University of Sheffield)
• David Adams (Melius Homes and formerly of Willmott Dixon)
• Dr Tim Sharpe (Glasgow School of Art)
• Claire Curtis-Thomas (British Board of Agrement)

Management Team

Small operational team that will organise the activities of the group. In order to kick start the process, The BPN will be managed by the Sustainable Development Foundation under the direct guidance from:

• George Martin (Sustainable Development Foundation)
• Mike Ormesher
• Prof Will Swan (University of Salford)
• Jon Bootland (Sustainable Development Foundation)

Advisory Group

Lynne Sullivan OBE (LSA Studio) will assist in establishing an Advisory Group to include a cross section of people from the built environment sector who can direct the technical direction of the Building Performance Network.

Membership

• **Member** – The Building Performance Network brings together organisations and individuals who work together to create real and lasting change. By joining the network as a Member you and your organisation become part of a UK wide community of leaders who are the cutting edge of building performance evaluation or have ambition to get there fast.

• **Pioneer** – Our exclusive pioneer group is available to organisations who are already at the cutting edge of building performance evaluation, with senior staff willing to embrace the full implications, and who are seriously committed to transforming the sector.

Please note that there is no link between Governance and the higher level of membership.

Peer Review Group

Leading respected experts with influence in the built environment sector.

8.0 Why We Need Your Support

The BPN is founded on the principle that participation should be open for all and that the member organisation has an interest in the performance of buildings in use. It is constituted as an independent, non-profit organisation, which requires some core funding. This includes development of a formal management structure and also governance arrangements.

This consists of:

- an independent cross-sectoral Board
- a small management team to handle the core activities
- separate working groups for technical issues, policy and communications.

The BPN also needs central funding for its core activities during the initial set-up period. A small number of organisations have already committed support and funding bids are prepared to help finance the core function, but additional sponsorship from industry will also be needed for the initiative to be successful. Initial proposed activities are:

- Development of marketing collateral and further development of our website
- BPN "State of the Nation" Report to address the current status of building performance with the UK
- Appointment of a full time Chief Executive Officer.

9.0 Membership

Member Benefits

- Be a part of an exclusive collective group of expert organisations shaping the building performance landscape and be seen as a credible collaborator by government and other organisations with an interest in this field

- Support engagement with government in a unified industry approach and have a say in what is proposed as industry standards

- Learn and share knowledge about the latest developments in Building Performance Evaluation (BPE) and gain access to best practice guidance about BPE

- Network with experts, building clients, data owners and others who can develop or review studies to good practice standards

- Promotion of your organisation on the BPN website

- Link your dataset into the BPN portal (where relevant)

- Involvement in BPN working groups/ technical committees

- Invitation to attend an exclusive annual event with building performance evaluation experts.

Pioneer Benefits

- Membership of The Pioneers Group

- Direct line to a dedicated BPN advisor including 2 days of a BPE expert to advise confidentially about your studies either beforehand in helping to plan then, or afterwards in reviewing and adding credibility to the results

- Help to shape the Building Performance landscape through involvement in our Policy Working Group

- Access to the Peer Review process

- Gain support for informed decision making when embarking on building performance studies and collection of data**

- Gain credibility for new products and services through expert advice on your results against collective industry standards with a tailored advisory review of plans by a BPN advisor.**

** NOTE: The in-house reviews are advice about good practice. They do not include full Peer Review, which would have to be undertaken and paid for separately. However, they should indicate strengths and weaknesses in any study or results, and highlight whether there would be value in undertaking a full Peer Review process.

Fees

Annual Fee	Member	Pioneer
Turnover	Fee per annum +VAT	Fee per annum +VAT
Less than £1m	£500	£2,000
£1m to £5m	£750	£3,000
£5m to £25m	£1,500	£4,000
£25m to £50m	£2,000	£6,000
£50m to £100m	£3,000	£8,000
£100m to £500m	£4,000	£10,000
£500m +	£5,000	£12,500

To become a member please call **+44 (0) 20 7704 3508**, email us at **info@building-performance.network** or complete an online application at **www.building-performance.network**

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The BPN offers so much to so many if you consider the clear need for a leadership role and a collaboration of both Industry and Government, to solve a very complex problem.

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